C-4

EPA General Permit WAG130000 - Annual Report

Annual Report of Operations for Year 2017

To comply with NPDES General Permit No. WAG130000 for Federal Aquaculture Facilities and Aquaculture Facilities Located in Indian Country within the Boundaries of the State of Washington

RECEIVED
JAN 22 2018
EPA - REGION 10
Office of Compliance and Enforcement

NPDES # for your Facility:
WAG130003

Facility & Owner Information

Facility Name:
Little White Salmon National Fish Hatchery

Operator Name (Permittee):
Little White Salmon National Fish Hatchery

Address:
56961 SR 14
Cook, WA 98605

Email: Bob_Turik@fws.gov
Phone: 509-538-2755

Owner Name (if different from operator):

Email:
Phone:

Best Management Practices (BMP) Plan

Has the BMP Plan been reviewed this year? ■ Yes ☐ No

Does the BMP Plan fulfill the requirements of the General Permit? ■ Yes ☐ No

Summarize any changes to the BMP Plan since the last annual report. Attach additional pages if necessary.

ICIS
1/23/18
JSL

EPA General Permit WAG130000 - Annual Report

Operations and Production

Total harvestable weight produced in the past calendar year in pounds (lbs): 130,326

Pounds of food fed to fish during the maximum month: 23,540

List the species grown or held at your facility and the annual production of each in gross harvestable weight. If fish were released rather than harvested, list the weight at time of release.

Species	Fish Produced	Receiving Water(s) to which Fish were Released	Month Released/ Spawned
Chinook (Lot 56)	60,692	Little White Salmon River	July
Chinook (Lot 56)	5,673	Transferred to Prosser	April
Chinook (Lot 53)	27,277	Little White Salmon River	April
Chinook (Lot 55)	36,684	Currently onsite	Spawned '16

Fill in the table below with production numbers from the past year. List the **maximum** amount of fish on-site and the maximum amount of food fed **per month**.

Month	Total Fish (lbs)	Fish Feed (lbs)	Month	Total Fish (lbs)	Fish Feed (lbs)
January	45,471	3,584	July	86,994	6,864
February	54,595	8,008	August	32,767	6,996
March	81,710	12,100	September	33,256	4,338
April	91,245	11,880	October	36,599	3,670
May	42,750	11,792	November	36,638	2,068
June	79,040	23,540	December	36,684	880

Additional Comments:

Solid Waste Disposal

Describe the solid waste disposed of during the calendar year (including fish mortalities).

Type of Solid Disposed	Date Disposed	Location Disposed
fish fecal matter	Jan - Dec	earthen pits (onsite)
sediment/organic matter	Jan - Dec	earthen pits (onsite)
fish mortalities	Jan - Dec	earthen pits (onsite)

Additional Comments:

Fecal matter/organics/sediment are flushed from raceways. Mortalities buried daily.

Fish Mortalities

Include a description and the dates of mass mortalities in the past year (more than 5% per week). Attach additional pages, if necessary. Include total mortalities from all causes.

Date	Cause of Deaths	Steps Taken to Correct Problem	Pounds of Fish
NA	NA	NA	NA

Additional Comments:

Noncompliance Summary

Include a description and the dates of noncompliance events (including spills), the reasons for the incidents, and the steps taken to correct the problems. Attach additional pages, if necessary.

NA

Inspections & Repairs for Production & Wastewater Treatment Systems

Date Inspected	Date Repaired	Description of System Inspected and/or Repaired
		NA

Aquaculture Drugs and Chemicals

Please indicate whether you used each drug/chemical **during the past calendar year**.
Describe the use of each drug/chemical in more detail on the following pages.

Used in the past year?	Drug or Chemical
☐ Yes ☒ No	Azithromycin
☐ Yes ▣ No	Chloramine-T: ***See additional reporting requirements on page 7***
▣ Yes ☐ No	Chlorine
▣ Yes ☐ No	Draxxin
☐ Yes ▣ No	Erythromycin - injectable
☐ Yes ▣ No	Erythromycin - medicated feed
☐ Yes ▣ No	Florfenicol (Aquaflor)
▣ Yes ☐ No	Formalin - 37% formaldehyde: ***See additional reporting requirements on page 7***
☐ Yes ▣ No	Herbicide - describe:
☐ Yes ▣ No	Hormone - describe:
☐ Yes ▣ No	Hydrogen Peroxide: ***See additional reporting requirements on page 7***
▣ Yes ☐ No	Iodine: ***See additional reporting requirements on page 7***
▣ Yes ☐ No	Oxytetracycline
☐ Yes ▣ No	Potassium Permanganate: ***See additional reporting requirements on page 7***
☐ Yes ▣ No	Romet
☐ Yes ▣ No	SLICE (emamectin benzoate)
▣ Yes ☐ No	Sodium Chloride - salt
☐ Yes ▣ No	Vibrio vaccine
▣ Yes ☐ No	Other: MS-222 (tricaine methanesulfonate)
▣ Yes ☐ No	Other: Virkon Aquatic

EPA General Permit WAG130000 - Annual Report

Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

Brand Name: Draxxin		Generic Name: Tulathromycin	
Reason for use: Prevent pre-spawn mortality due to bacterial kidney disease			
■ Preventative/Prophylactic ☐ As-needed	Total quantity of formulated product per treatment (specify units): 140 grams	Total quantity of formulated product used in past year (specify units): 140 grams	
Date(s) of treatment: July 5-7 (One treatment/fish performed over 3 days; 46.7 g/day)			Total number of treatments in past year: 1
Maximum daily volume of treated water: NA	Treatment concentration (specify units): 10mg/kg body wght	Duration and frequency of treatment(s): 1 injection event per fish	
Method of application:	☐ Static Bath ☐ Flow-through	☐ Medicated Feed ■ Other (describe): Injection	
Location in facility chemical was used (check all that apply):	☐ Raceways ☐ Incubation building	☐ Ponds ☐ Off-line settling basin	■ Other (describe): Adult holding building
Where did water treated with this chemical go? (check all that apply):	☐ Discharged w/o treatment ☐ Settling basin	☐ Septic System ☐ Publicly owned treatment works	■ Other (describe): NA
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Brand Name: MS-222		Generic Name: Tricaine methanesulfonate	
Reason for use: Fish anesthetic			
☐ Preventative/Prophylactic ■ As-needed	Total quantity of formulated product per treatment: 1750grams (max)	Total quantity of formulated product used in past year (specify units): 1,147 grams	
Date(s) of treatment: June 5 - Sept. 11			Total number of treatments in past year: 12
Maximum daily volume of treated water: 2,040 liters	Treatment concentration (specify units): 85 ppm	Duration and frequency of treatment(s): Appx. 6 hours per day	
Method of application:	■ Static Bath ☐ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	☐ Raceways ☐ Incubation building	☐ Ponds ☐ Off-line settling basin	■ Other (describe): Adult ponds and tub
Where did water treated with this chemical go? (check all that apply):	☐ Discharged w/o treatment ■ Settling basin	☐ Septic System ☐ Publicly owned treatment works	■ Other (describe): *See note
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use: *Adult pond effluent is diluted in the offline settling basin. Tub effluent (50 gallons) is diluted 4:1 and disposed of on land/pavement away from drains.			

Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

Brand Name: Multi-Chlor		Generic Name: Chlorine	
Reason for use: Raceway disinfection			
☐ Preventative/Prophylactic ☒ As-needed	Total quantity of formulated product per treatment (specify units): 150mls (max)	Total quantity of formulated product used in past year (specify units): 3.7 Liters	
Date(s) of treatment: April, May, July, Oct.			Total number of treatments in past year: 42
Maximum daily volume of treated water: NA	Treatment concentration (specify units): 1.6 ml/liter H_2O	Duration and frequency of treatment(s): 1 or 2 applications/year/raceway	
Method of application:	☐ Static Bath ☐ Flow-through	☐ Medicated Feed ■ Other (describe): Wand sprayer	
Location in facility chemical was used (check all that apply):	■ Raceways ☐ Incubation building	☐ Ponds ☐ Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go? (check all that apply):	☐ Discharged w/o treatment ☐ Settling basin	☐ Septic System ☐ Publicly owned treatment works	■ Other (describe): * Evaporated at site of application
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use: * Sodium thiosulfate is applied around closed drains as a precaution. No chlorine detected in effluent.			

Brand Name: Ovadine (10.7%)		Generic Name: Iodine (with Povadine)	
Reason for use: Egg and equipment disinfection			
☒ Preventative/Prophylactic ☒ As-needed	Total quantity of formulated product per treatment: 6.8 L on average	Total quantity of formulated product used in past year (specify units): 115 liters	
Date(s) of treatment: Aug 10 - Nov. 22			Total number of treatments in past year: 17
Maximum daily volume of treated water: 1,420 liters	Treatment concentration (specify units): 100 ppm	Duration and frequency of treatment(s): One treatment per stack for 30 minutes	
Method of application:	■ Static Bath ☐ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	☐ Raceways ■ Incubation building	☐ Ponds ☐ Off-line settling basin	■ Other (describe): * Spawning building
Where did water treated with this chemical go? (check all that apply):	■ Discharged w/o treatment ☐ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use: * Tub for equipment disinfection is neutralized with sodium thiosulfate. Iodine in egg stacks is discharged without treatment but is diluted appx: 1:1			

Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

Brand Name: Virkon Aquatic		Generic Name: Potassium peroxymonosulfate	
Reason for use: Foot bath			
☐ Preventative/Prophylactic ■ As-needed	Total quantity of formulated product per treatment (specify units): 0.20 Kg	Total quantity of formulated product used in past year (specify units): 10.2 Kg	
Date(s) of treatment: June - November			Total number of treatments in past year: 177 days
Maximum daily volume of treated water: 57 liters	Treatment concentration (specify units): 1% solution: 200 g per 19 liters H_2O	Duration and frequency of treatment(s): Foot baths are used 24/7	
Method of application:	■ Static Bath ☐ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	Raceways ■ Incubation building	☐ Ponds ☐ Off-line settling basin	■ Other (describe): Lower raceway building
Where did water treated with this chemical go? (check all that apply):	☐ Discharged w/o treatment ☐ Settling basin	☐ Septic System ☐ Publicly owned treatment works	■ Other (describe): See note
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use: Poured on concrete away from drains.			

Brand Name: Terramycin		Generic Name: Oxytetracycline	
Reason for use: Disease control			
☐ Preventative/Prophylactic ■ As-needed	Total quantity of formulated product per treatment: 3.75g per 45.4 Kg body weight	Total quantity of formulated product used in past year (specify units): 5.2 Kg	
Date(s) of treatment: Aug 15 - Sept. 5 (Raceways fed on staggered sched)			Total number of treatments in past year: 1
Maximum daily volume of treated water: NA	Treatment concentration (specify units): NA	Duration and frequency of treatment(s): One 10-day treatment	
Method of application:	☐ Static Bath ☐ Flow-through	■ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	■ Raceways ☐ Incubation building	☐ Ponds ☐ Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go? (check all that apply):	☐ Discharged w/o treatment ☐ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe): NA
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

Brand Name: Parasite-S (37%)		Generic Name: Formalin	
Reason for use: Control + prevent fungus on eggs + adults			
☒ Preventative/Prophylactic ☒ As-needed	Total quantity of formulated product per treatment (specify units): 1,667 ppm (max)	Total quantity of formulated product used in past year (specify units): 3,474 liters	
Date(s) of treatment: June 5 - Dec 29			Total number of treatments in past year: 128
Maximum daily volume of treated water: 23,177,622 L	Treatment concentration (specify units): 167 ppm (adults) 1,667 ppm (eggs)	Duration and frequency of treatment(s): 3x per week @ 1 hour 3x per week @ 15 minutes	
Method of application:	☐ Static Bath ☒ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	☒ Raceways ☒ Incubation building	☒ Ponds (Adult) ☐ Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go? (check all that apply):	☒ Discharged w/o treatment ☐ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Brand Name: Sodium thiosulfate		Generic Name: Sodium thiosulfate	
Reason for use: Chlorine / iodine neutralization			
☐ Preventative/Prophylactic ☒ As-needed	Total quantity of formulated product per treatment: 7 grams (max)	Total quantity of formulated product used in past year (specify units): Appx. 200 grams	
Date(s) of treatment: April, May, July, August - Nov.			Total number of treatments in past year: 6 2
Maximum daily volume of treated water: 2,040 L	Treatment concentration (specify units): 1.4 or 1.5 grams / Liter of Cl or I	Duration and frequency of treatment(s): As needed	
Method of application:	☒ Static Bath ☐ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	☒ Raceways ☒ Incubation building	☐ Ponds ☐ Off-line settling basin	☒ Other (describe): Spawning building
Where did water treated with this chemical go? (check all that apply):	☒ Discharged w/o treatment ☐ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

Brand Name: American Workman		Generic Name: Sodium chloride	
Reason for use: Fish therapeutic; saline water for egg fertilization			
☐ Preventative/Prophylactic ☒ As-needed	Total quantity of formulated product per treatment (specify units): * See note	Total quantity of formulated product used in past year (specify units): 708 Kg	
Date(s) of treatment: June 1 through Nov. 22			Total number of treatments in past year: 35
Maximum daily volume of treated water: 43,806 liters	Treatment concentration (specify units): * * 0.87 Kg / 95 liters	Duration and frequency of treatment(s): Variable	
Method of application:	☒ Static Bath ☒ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	☒ Raceways ☐ Incubation building	☐ Ponds ☐ Off-line settling basin	☒ Other (describe): Transfer truck and 50 gallon tub
Where did water treated with this chemical go? (check all that apply):	☒ Discharged w/o treatment ☐ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use: * "Worst case scenario" sheet attached with notes ** Egg fertilization			

Brand Name:		Generic Name:	
Reason for use:			
☐ Preventative/Prophylactic ☐ As-needed	Total quantity of formulated product per treatment:	Total quantity of formulated product used in past year (specify units):	
Date(s) of treatment:			Total number of treatments in past year:
Maximum daily volume of treated water:	Treatment concentration (specify units):	Duration and frequency of treatment(s):	
Method of application:	☐ Static Bath ☐ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	☐ Raceways ☐ Incubation building	☐ Ponds ☐ Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go? (check all that apply):	☐ Discharged w/o treatment ☐ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Aquaculture Drugs and Chemicals (cont'd)

Additional Reporting Requirements for Water-Borne Treatments

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Sodium chloride **Static Bath Treatments**		
Tank Volume	See attached notes	Liters
Desired Static Bath Treatment Concentration	" "	µg/L
Volume of Product Needed	21	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: See notes Active Ingredient:	Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	104,473,731 liters/day	Specify Units
Maximum % of Facility Discharge Treated	0.04	% of Total Discharge

Parasite-S (37% formalin) **Flow-Through Treatments**		
Tank Volume	393,434	Liters
Calculated Flow Rate	9,040	Liters/Minute
Duration of Treatment	60	Minutes
Desired Flow-Through Treatment Concentration of Product	167,000	µg/L
Amount of Product to Add Initially	NA	Liters Product
Amount of Product to Add During Treatment	1,443	mL/Minute
Total Volume of Product Needed	86.7	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: 0.063 mg/L Active Ingredient: 0.023 mg/L	Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	104,473,731 liters/day	Specify Units
Maximum % of Facility Discharge Treated	2.00	% of Total Discharge

Sodium Chloride

For worst case scenario:

Two 50 pound bags of salt are added to a transfer truck tank for fish transfers as a static bath.

Transfer tank volume: 8,328 liters

Treatment concentration: 5417 ppm

Fish are released, along with holding water (salt solution), into a raceway. Calculations for raceway discharge to outflow are as follows:

Raceway volume: 43,806 liters

Maximum concentration of salt in raceway: 1034 ppm

Maximum effluent concentration of solution: 1.93 mg/L

Maximum effluent concentration of active ingredient: 1.04 grams of salt/liter of H_20

Aquaculture Drugs and Chemicals (cont'd)

Additional Reporting Requirements for Water-Borne Treatments

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- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Iodine (Ovadine) **Static Bath Treatments**	
Tank Volume	3,744 Liters
Desired Static Bath Treatment Concentration	100,000 µg/L
Volume of Product Needed	17.5 Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: 0.0062 mg/L Active Ingredient: 0.0007 mg/L Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	60,750,144 Specify Units
Maximum % of Facility Discharge Treated	0.006 % of Total Discharge

Flow-Through Treatments	
Tank Volume	Liters
Calculated Flow Rate	Liters/Minute
Duration of Treatment	Minutes
Desired Flow-Through Treatment Concentration of Product	µg/L
Amount of Product to Add Initially	Liters Product
Amount of Product to Add During Treatment	mL/Minute
Total Volume of Product Needed	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: Active Ingredient: Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	Specify Units
Maximum % of Facility Discharge Treated	% of Total Discharge

Aquaculture Drugs and Chemicals (cont'd)

Additional Reporting Requirements for Water-Borne Treatments

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

MS-222 **Static Bath Treatments**	
Tank Volume	2,040 Liters
Desired Static Bath Treatment Concentration	83,000 µg/L
Volume of Product Needed	175 g (density unknown for liter conversion) Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: 0.0026 mg/L Active Ingredient: 0.0026 mg/L Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	66,144,120 liters Specify Units
Maximum % of Facility Discharge Treated	0.003 % of Total Discharge

Flow-Through Treatments	
Tank Volume	Liters
Calculated Flow Rate	Liters/Minute
Duration of Treatment	Minutes
Desired Flow-Through Treatment Concentration of Product	µg/L
Amount of Product to Add Initially	Liters Product
Amount of Product to Add During Treatment	mL/Minute
Total Volume of Product Needed	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: Active Ingredient: Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	Specify Units
Maximum % of Facility Discharge Treated	% of Total Discharge

Aquaculture Drugs and Chemicals (cont'd)

Additional Reporting Requirements for Water-Borne Treatments

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Sodium thiosulfate **Static Bath Treatments**	
Tank Volume	2,040 Liters
Desired Static Bath Treatment Concentration	1.5 E6 µg/L
Volume of Product Needed	7.0 grams (density unknown) Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: 6.93 E-10 mg/L Active Ingredient: 6.93 E-10 mg/L Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	60,750,144 Specify Units
Maximum % of Facility Discharge Treated	0.006 % of Total Discharge

Flow-Through Treatments	
Tank Volume	Liters
Calculated Flow Rate	Liters/Minute
Duration of Treatment	Minutes
Desired Flow-Through Treatment Concentration of Product	µg/L
Amount of Product to Add Initially	Liters Product
Amount of Product to Add During Treatment	mL/Minute
Total Volume of Product Needed	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: Active Ingredient: Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	Specify Units
Maximum % of Facility Discharge Treated	% of Total Discharge

Changes to the Facility or Operations

Describe any changes to the facility or operations since the last annual report.
Facility changes include installation of a drum filter for increased effluent treatment and an upgrade to the existing off-line settling basin.

Signature and Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly evaluate and gather the information submitted. Based on my inquiry of the person or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

ROBERT TURIK	HATCHERY MANAGER
Printed name of person signing	Title
	1/17/2018
Applicant Signature	Date Signed

Submittal Information

Send the complete, signed information, along with any attachments, to the following address:

U.S. EPA Region 10, OWW-191

Washington Hatchery Annual Report

1200 Sixth Avenue, Suite 900

Seattle, WA 98101-3140

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Little White Salmon National Fish Hatchery
56961 SR 14 - Cook, WA 98605
Phone: (509) 538-2755 Fax: (509) 538-2880

1/25/17

To: Whom it may concern

Subject: Resubmittal of EPA Annual Report of Operations for Little White Salmon NFH

This is a resubmittal of the Annual Report of Operations. An incomplete copy was accidentally submitted due to office error. This is a completed copy. Please ensure this is the copy of record for Little White Salmon NFH.

Robert Turik
Hatchery Manager

corrected report

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